

MATH EDUCATION INITIATIVE

2009 GENERAL SESSION

STATE OF UTAH

LONG TITLE**General Description:**

This bill creates a program that awards grants to school districts and charter schools that offer Singapore math in grades kindergarten through 8 and meet other math curriculum requirements.

Highlighted Provisions:

This bill:

- ▶ requires the Legislature to annually appropriate money to the State Board of Education for the Math Education Initiative, subject to future budget constraints;
- ▶ directs the State Board of Education to make grants to school districts and charter schools from monies appropriated for the Math Education Initiative to help pay for costs of participating in the Math Education Initiative;
- ▶ directs the State Board of Education to provide training to Utah Singapore math specialists from monies appropriated for the Math Education Initiative;
- ▶ requires a school district or charter school that participates in the Math Education Initiative to:
 - offer Singapore math in grades kindergarten through 8 and certain mathematics courses beyond grade 8;
 - administer math achievement tests using computerized adaptive testing;
 - schedule elementary and secondary math classes on a daily basis and for an average of four to five hours weekly;
 - require a minimum of 144 hours of instruction and testing for one unit of secondary math; and
 - provide professional development to teachers in Singapore math;
- ▶ provides an exemption from math curriculum standards adopted by the State Board of Education for a school district or charter school that participates in the Math Education Initiative; and
- ▶ requires the State Board of Education to make rules to establish:

- qualifications for a Utah Singapore math specialist; and
- requirements for an elementary math endorsement.

Monies Appropriated in this Bill:

This bill appropriates as an ongoing appropriation subject to future budget constraints, \$1,000,000 from the Uniform School Fund for fiscal year 2009-10 to the State Board of Education.

Other Special Clauses:

This bill provides an effective date.

Utah Code Sections Affected:

ENACTS:

53A-17a-163, Utah Code Annotated 1953

Be it enacted by the Legislature of the state of Utah:

Section 1. Section **53A-17a-163** is enacted to read:

53A-17a-163. Math Education Initiative.

(1) As used in this section:

(a) "Singapore math" means the math curriculum created by the education ministry in Singapore for use in Singapore schools and encompassing the textbooks, workbooks, and other materials based on the math curriculum.

(b) "Utah Singapore math specialist" means an individual who:

(i) provides professional development to teachers in Singapore math; and

(ii) meets qualifications established by the State Board of Education in rule.

(2) The Math Education Initiative is created to:

(a) make Utah the premier state for math education and a recognized source of skilled scientists and engineers;

(b) meet the demand of Utah employers for workers with high math skills; and

(c) entice companies that require a highly skilled technical workforce to locate in the state.

(3) The formation of public-private partnerships is encouraged to advance the purposes of the Math Education Initiative as specified in Subsection (2).

(4) (a) Subject to future budget constraints, the Legislature shall:

64 (i) annually appropriate money to the State Board of Education for the Math Education
65 Initiative; and

66 (ii) increase appropriations for the Math Education Initiative as the state's capacity to
67 provide professional development to teachers in Singapore math expands.

68 (b) From monies appropriated for the Math Education Initiative, the State Board of
69 Education shall:

70 (i) award grants to school districts and charter schools to help pay for a school district's
71 or charter school's costs of participating in the Math Education Initiative; and

72 (ii) provide training to Utah Singapore math specialists by a consultant mathematician
73 who has experience in Singapore math programs.

74 (5) Participation in the Math Education Initiative is voluntary for school districts and
75 charter schools.

76 (6) (a) A school district or charter school that participates in the Math Education
77 Initiative shall:

78 (i) adopt Singapore math for grades kindergarten through 8, except as provided in
79 Subsection (6)(b);

80 (ii) beyond grade 8, offer:

81 (A) honors and regular sections of algebra 1, geometry, and algebra 2, taught from a
82 small group of high quality textbooks recommended by the State Instructional Materials
83 Commission;

84 (B) an honors pre-calculus course that corresponds to Math 1050, college algebra, and
85 Math 1060, trigonometry, at Utah higher education institutions so that high achieving students
86 can receive college credit through concurrent enrollment; and

87 (C) calculus and statistics courses that meet the standards for the Advanced Placement
88 exams;

89 (iii) administer math achievement tests at the beginning and the end of the school year
90 using computerized adaptive testing to students taking Singapore math classes;

91 (iv) schedule elementary and secondary math classes:

92 (A) on a daily basis throughout the school year; and

93 (B) for an average of four to five hours weekly;

94 (v) require a minimum of 144 hours of instruction and testing time for one unit of

95 secondary math; and

96 (vi) provide professional development to teachers in Singapore math.

97 (b) (i) A school district or charter school may phase in the adoption of the Singapore
98 math curriculum in grades kindergarten through 8 over two or more years.

99 (ii) A school district may phase in the adoption of the Singapore math curriculum
100 throughout all schools in the school district over two or more years.

101 (c) If a school district or charter school has insufficient enrollment in a higher level
102 math class listed in Subsection (6)(a)(ii) to justify the cost of hiring an instructor for the class,
103 the school district or charter school may offer the class through distance education, including
104 interactive video conferencing and online instruction.

105 (7) The State Board of Education shall exempt a school district or charter school that
106 participates in the Math Education Initiative from the mathematics curriculum standards
107 adopted by the board under Sections 53A-1-402 and 53A-1-402.6 if the school district or
108 charter school adopts math curriculum standards aligned with Singapore math and the courses
109 specified in Subsections (6)(a)(ii)(A) through (C).

110 (8) (a) To participate in the Math Education Initiative, a school district or charter
111 school shall submit a proposal to the State Board of Education.

112 (b) (i) The State Board of Education shall appoint an advisory committee to review the
113 proposals and make recommendations to the board on awarding grants to school districts and
114 charter schools to participate in the Math Education Initiative.

115 (ii) The advisory committee appointed under Subsection (8)(b)(i) shall consist of five
116 members of whom:

117 (A) three members shall be mathematicians who serve or have served as a math
118 professor at a higher education institution in Utah that offers graduate level degrees in
119 mathematics; and

120 (B) two additional members shall have a high level of expertise in mathematics.

121 (9) (a) The State Board of Education shall award grants to school districts and charter
122 schools in the amount of \$100 per student in grades kindergarten through 8 who participates in
123 the Math Education Initiative, except after a school district's or charter school's first year of
124 participation, a grant may be awarded in the amount of \$100 for each additional student in
125 grades kindergarten through grade 8 who participates in the Math Education Initiative.

(b) A school district or charter school may use the grant monies to pay for Singapore math instructional materials or professional development in teaching Singapore math.

(10) The State Board of Education shall:

(a) in accordance with Title 63G, Chapter 3, Utah Administrative Rulemaking Act, make rules establishing:

(i) qualifications for a Utah Singapore math specialist; and

(ii) requirements to obtain an elementary math endorsement; and

(b) seek the advice and recommendations of a consultant mathematician who has experience in Singapore math programs in establishing the qualifications for a Utah Singapore math specialist and requirements for an elementary math endorsement.

Section 2. **Appropriation.**

As an ongoing appropriation subject to future budget constraints, there is appropriated \$1,000,000 from the Uniform School Fund for fiscal year 2009-10 to the State Board of Education for grants to school districts and charter schools that participate in the Math Education Initiative created in Section 53A-17a-163.

Section 3. **Effective date.**

(1) Except as provided in Subsection (2), if approved by two-thirds of all the members elected to each house, this bill takes effect upon approval by the governor, or the day following the constitutional time limit of Utah Constitution Article VII, Section 8, without the governor's signature, or in the case of a veto override.

(2) Uncodified Section 2, Appropriation, takes effect on July 1, 2009.